## Panhandle Health District

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## **Telehealth Offers Homebound Patients Daily Monitoring**

By Cynthia Taggart Panhandle Health District

Lisa Cramer, a Panhandle Health District (PHD) registered nurse, raised her eyebrows as she studied the chart on the computer screen in her Hayden office. Her patient Darlene's blood pressure reading was highlighted in red. It was not in the acceptable range for the second consecutive day.

Lisa called Darlene on the phone. Darlene, a congestive heart failure patient, lives an hour away from the health district office. Lisa, who provides skilled nursing services in people's homes, can visit Darlene only once or twice a week. But she checked Darlene's vital signs every day at her desk with the aid of a Honeywell HomMed Patient Monitor.

The radio-sized monitor enables patients to record their weight, blood pressure, oxygen saturation level, heart rate and temperature daily by themselves and transmit the information via computer to PHD.

"It drives our nursing care," says Michelle Reiss, nursing supervisor of PHD's Home Health division. "We may have two visits a week scheduled to a patient, but when we find out from the monitor that they're unstable, we visit earlier."

Lisa asked Darlene to test her blood pressure again, then FAXed the results to Darlene's doctor. The doctor changed Darlene's medication.

"With the monitor, we can see how a patient is doing every day," Reiss says. "We couldn't do that before."

Telemonitors are rare in northern Idaho. PHD has five that it acquired in August after Reiss recognized how they could benefit patient care. Her Home Health division provides in-home, doctor-ordered professional nursing care for all ages of patients in the five northern counties. Most Home Health patients have chronic, long-term health problems or are recovering from surgery.

Home Health patients outnumber nursing staff and are spread out over five counties. Daily visits for most are out of the question. Before the telemonitors, nurses checked patient vital signs in person once or twice a week and hoped patients or their family would call if anything was wrong on the other days.

Reiss saw the telemonitors as a means to reducing the number of Home Health patients who need to return to the hospital. The monitors enable nurses to assess a patient's stability daily and react quickly to problems. They also save nurses' time for more patient care.

"We can make smarter choices with our time," say Mary DeTienne, director of PHD's Home Health division. "And now we can monitor even people in Avery or Tensed or Moyie Springs daily."

The monitors enhance Home Health services and give patients more confidence in their care.

"They're not designed to replace nurses," Reiss says. "It's a comfort to patients to know they're monitored on a daily basis."

PHD paid the \$10,400 to lease five monitors for a year with money the Centers for Disease Control sent the district to prepare for pandemic flu. Doug Welch, who manages PHD's Public Health Preparedness program, envisions a huge role for the monitors during a pandemic flu that will sicken the masses.

PHD will need as many nurses as possible to help the sick.

By placing telemonitors in assisted living facilities during a pandemic, nurses who typically visit the centers to take patient vital signs will be able to redirect their time to help the seriously ill. The telemonitors will provide updated vital signs from a variety of sites so nurses will know where they're

most needed. The telemonitors also will enable patients to stay isolated but get their vital signs to medical staff for appraisal.

"In all the projects we considered, that one has one of the biggest pay-offs," Welch says.

PHD put its first telehealth system to use Aug. 2. Lisa installed the equipment—a compact monitor, blood pressure cuff, finger clip to measure oxygen levels and flat digital scale—in a patient's home. She programmed the monitor to alert the patient every morning at the same time like an alarm clock. It says, "Good morning! It's time to take your vitals." Then it guides the patient through the process, pausing between each step.

The weight on the digital scale is transmitted automatically to the computer on Lisa's desk. Lisa taught the patient to slip on the blood pressure cuff and oxygen finger clip and push a button on the monitor to record the levels and send them to Lisa.

The monitors also are programmed to ask the patient certain questions. Dozens of options are offered. Lisa chooses the ones that apply to her patient.

"Are you out of your medications? Have you had a fall in the last day? Do you have severe heartburn today?"

"It takes less than five minutes a day to use," Lisa says.

On Lisa's end, the program rates vital sign results from green (good) to red (problem) in five steps based on parameters Lisa sets for each patient. A quick glance at her computer screen tells Lisa immediately if her patient needs her attention.

Some patients like playing an active role in their healthcare and knowing Lisa or Rousal Mahakam, another PHD Home Health R.N. who works with the program, are assessing their vital signs daily. The technology, although simple, intimidates a few patients. PHD installs the equipment only for patients who want it and removes it if patients ask.

"Some people seem like good candidates to use it, but they're not," Lisa says. "One woman had too much anxiety and didn't use it correctly. Most are receptive, though."

Fourteen PHD patients have used the telemonitors for an average of two to three weeks each. PHD disconnects them once patients are stable. Using the monitors adds nothing to patient expenses. The monitors work only with landline phones.

"We're really excited about this," Reiss says. "It has such potential."

For information on PHD's Home Health program and the telemonitors, call 415-5160.